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ABSTRACT

This report examines the University of California's potential for responding to the needs of part-time students and urges the University into unchartered but exciting educational arenas. The report asks the University to make its upper division and master's program more available, its facilities more accessible, and its support services more convenient to qualified students wishing to study part-time for University degrees. It also asks the University to extend its instructional programs off the campus and into the communities of the state, especially when easy access to a University campus is not possible. In addition, it encourages the University to explore promising but less familiar modes of teaching. And finally, it recommends that a series of pilot programs begin with the fall term of 1972 for the purpose of experimenting with and evaluating these ideas. (HS)

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CHARLES J. HITCH
President of the University

BERKELEY, CALIFORNIA 94720

November 4, 1971

PRESIDENT CHARLES J. HITCH

Dear President Hitch:

Submitted herewith is the report of the Task Force on the Extended University. The report is entitled "Degree Programs for Part-Time Students: A Proposal" and the recommendations contained therein represent a consensus subscribed to by all the members.

Respectfully submitted,

Leonard Freedman

Leonard Freedman, Chairman of the
Task Force on the Extended University

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UNIVERSITY OF CALIFORNIA
DEGREE PROGRAMS
FOR THE
PART-TIME STUDENT:
A Proposal

A Report of the
President's Task Force on the Extended University
November 1971

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Narrative Summary of Main Recommendations

Introduction

There is a growing demand that the nation's institutions of higher education increase opportunities for part-time students to attain degrees.

The University of California has been studying these possibilities for the past 18 months. They were first considered at an All-University Faculty Conference, and later were studied by the Task Force on the Extended University and various committees representative of faculty and administrative opinion.

These discussions have produced two general conclusions:

- 1 -- The concept of providing more opportunities for part-time study toward degrees is endorsed in principle.
- 2 -- The degree programs for part-time students (extended degree programs)* must be implemented in ways compatible with the mission and present situation of the University of California, i.e., the programs must be of University quality, and new resources must be sought to fund them.

The Students

While more complete data are needed before precise estimates can be made on potential student demand, it seems evident that there are already significant numbers of capable people interested in these programs. Some of these are within the age groups currently served by the University, but the larger number will be older. Initial applications are most likely to come from people with some college background, from

*This Report uses the terms "extended degree programs" and "degree programs for part-time students" interchangeably. Both references mean degree programs designed wholly or in substantial measure for part-time students.

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professional and technical fields, and from urban and suburban areas. Special efforts, therefore, must be made to insure that students are drawn from all segments of the population and from all parts of the state.

The Programs

While these programs may differ in important respects from conventional offerings, they must be qualitatively comparable.

The Degrees

Opportunities for part-time study should be provided only at the upper division level for baccalaureate degrees, and at the master's level for graduate degrees.

Admissions

Admissions policies, while admitting only those capable of University work, should employ a variety of newer techniques to determine an applicant's potential, including various kinds of examination procedures.

"Conditional" and "concurrent" enrollment status should be made available, and preparatory programs should be established.

Curriculum

Existing curricula will serve the purposes of many part-time students and should be made more accessible to them. However, new curricula should also be designed to allow for the special kinds of experience, motivations and goals of part-time students. In the selection of new curricula, a principal consideration should be the potential contribution which the University would be making to the general public interest as well as to the individual student.

Requirements for the Degree

Requirements for extended degree programs, though sometimes differing from those applied to existing ones, should be at least as demanding.

Attainment of new degrees should be based on mastery of curricula built around an integrated set of educational experiences.

A variety of student evaluation procedures should be employed, including comprehensive examinations, assessments of field work and creative accomplishments. Techniques should be devised to measure the attainment of "competencies" defined in relation to each program.

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Sympathetic consideration should be given to the transferability of credit taken outside the extended degree curricula, most especially where completed in existing University of California programs, including those of University Extension.

Residence requirements should be amended to remove barriers to the implementation of the programs.

Locations

Appropriate rescheduling of existing classes should make it possible for some part-time students to complete nearly all their work on a campus. However, a substantial component of off-campus study is an inseparable part of these programs. Accordingly:

- Existing campus facilities should be fully available to the part-time student, particularly in the late afternoons, evenings, on weekends, and in the summer.
- Learning centers, equipped with a variety of study facilities, should be established in various off-campus locations.
- Learning resources, including libraries, laboratories and computer facilities, must be augmented and made available to part-time students both on and off campus.
- University regulations which impose restrictions on off-campus study should be appropriately amended.

Instructional Methods

Substantial use should be made of independent study, including correspondence courses and various newer educational technologies. However, these should constitute only one dimension of a program that also includes direct personal contact with teaching staff and other students.

Faculty

The ladder faculty of the University must play a central role in the conception and implementation of extended degree programs, undertaking the prime responsibility for establishing standards, designing curriculum, and supervising the student evaluation process. They should

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also be involved in the teaching of the programs through a variety of traditional and non-traditional instructional techniques. This will be possible only if:

- there is an appropriate increase in the number of University ladder faculty members; and
- full recognition is given to the work of ladder faculty in these programs, in decisions concerning faculty promotions and merit increases.

Supplementation of ladder faculty alone, however, will not provide for all the instructional needs of extended degree programs. Other faculty, appointed to existing non-ladder series, will also be necessary, especially for teaching in off-campus locations.

Counseling

An extensive program of academic and non-academic counseling should be provided for part-time students.

Pilot Programs

The University should proceed on an experimental basis, should initiate pilot programs by the fall of 1972, and should expand thereafter on the basis of a careful assessment of experience. A prime consideration in the selection of pilot projects should be their potential for providing data that can be usefully employed by the University in the development of extended degree programs.

Organization

Principal considerations in the establishment of organizational structures for extended degree programs should be:

- the provision for new sources of initiative in the development of innovative programs;
- the need to give special attention to the interests of part-time students;
- the creation of an integral relationship between new and existing structures;
- the facilitation of both campus and statewide programs.

Accordingly:

On each campus, a college or division should be designated or created to develop and administer extended degree programs. This college or division would stand in the same administrative and academic relationship to the divisional Academic Senate as other colleges or divisions. Coordination of its responsibilities with those of University Extension and Summer Sessions must be assured.

Universitywide, a consortium of the campuses should be established, to be called New College. This College would be charged with a range of responsibilities including assistance in the development of campus-based programs; research into all phases of the programs; the fostering of multi-campus cooperation; direct offering of new degree curricula for students whose needs, for various reasons, cannot be adequately provided for by campus-based programs; and establishment of Learning Centers. New College should follow established procedures for instructional units in the development of curriculum and appointment of faculty, except that it would relate to statewide Senate committees. Most of the faculty would be drawn from the nine campuses, either on joint appointments or by way of temporary leave, though there would be a core faculty of permanent appointees.

New College would be administered by a Provost, who would be advised by a Board of Studies drawn from the campuses.

Financing

Extended degree students will be fully matriculated and making progress toward a University degree. Consequently, they should be counted in the University's workload, thus qualifying the program for state support.

While the costs involved will not be light, particularly in the developmental stages, it is anticipated that the programs proposed here can reveal ways of reducing unit costs of instruction in the University as a whole.

A study should be undertaken immediately to establish a structure of registration and educational fees appropriate to programs of part-time study.

Introduction

Among the most significant trends in American higher education today is a shift away from the assumption that degree programs should be concentrated into that period of a person's life between the ages of 18 and 24.

This shift is coming about in response to two new developments.

People are seeking increasing opportunities for higher education throughout their lifetime. Some of them missed the opportunity when they were young: they couldn't afford it, they were raising children or they lacked the motivation. Now they are eager for a second chance. Others who did acquire one or more college degrees earlier are finding that in a world of incessant technological and social change much of the knowledge they gained is now obsolete. They want to return to the university to be reeducated into new knowledge, new concepts and new skills. In most cases their work or other responsibilities will not allow them to study except on a part-time basis -- and such study, they are likely to find, is discouraged by university schedules and residence requirements, and by their own lack of proximity to centers of learning.

In response to these needs, the Carnegie Commission on Higher Education recently recommended:

"That alternative avenues by which students can earn degrees or complete a major portion of their work for a degree be expanded to increase accessibility of higher education for those to whom it is now unavailable because of work schedules, geographic location, or responsibilities in the home."¹

But it is not only older people who seek opportunities for part-time study. Many young people in college have become restless under the present system. The Carnegie report suggests that all students should not be expected to proceed from high school through four or more years of college without a break. The report proposed that "more options" be provided. Thus, students should be allowed, even encouraged, to defer college for a while, or to "stop out" from college to acquire work or community experience, and to return later when they are more certain of their goals.

Hence, universities are being called upon not only to develop more flexible avenues for teaching their traditional students -- the young -- but also to provide higher education for the span of life beyond the usual college years.

¹Carnegie Commission on Higher Education, Less Time, More Options (Hightstown, N.J.: McGraw-Hill for The Carnegie Foundation for the Advancement of Teaching, 1971), p. 20.

Introduction

Efforts have been made elsewhere to provide such programs. A number of universities offer evening college programs, which make the regular curriculum available to part-time students, but only students who live within commuting distance of a campus can participate in such programs. Other institutions including Oklahoma, Syracuse, and Harvard have developed new kinds of degree programs especially designed for the part-time student. Nevertheless, until quite recently the programs of these institutions have been exceptions to the rule that universities are almost exclusively preoccupied with their regular, full-time student bodies.

There is now a remarkable burgeoning of such programs around the country. The State University of New York recently established Empire State College to experiment with various methods of off-campus, non-traditional instruction in several academic areas. In addition, New York State recently authorized a Regent's degree in various fields of study, to be awarded without regard to how or where subject matter competence is acquired. Several universities and colleges have formed a consortium to sponsor a University Without Walls. Many public and private institutions as well as federal agencies and major foundations are participating in what has now assumed the proportions of a national movement. Indeed, the establishment of the British Open University, and similar projects in Sweden, Japan, Australia, and New Zealand suggest world-wide interest.

This has obvious implications for the University of California. Ours is a Land-Grant University, long committed to a belief in public service. The impact of the University's research on innumerable aspects of the economy of the state and nation has been immense. For over three quarters of a century, the Agricultural Extension program has made a remarkable contribution to the advancement of California agriculture. University Extension, entering its 81st year, holds a nationally pre-eminent position in its field, attracting almost a third of a million people annually to its programs in professional development, cultural enrichment, public issues, and urban affairs.

In this extraordinary panoply of service to the community, however, one crucial element is lacking: the opportunity to earn a degree through any means other than full time, residential enrollment.

This question has been the subject of intensive study within the University of California for the past 18 months. The President placed the issue before the Twenty-fifth All-University Faculty Conference in 1970. The Conference endorsed the idea in principle, urging that "the University expand opportunities for baccalaureate and graduate degrees through part-time study." The Conference called on the President to appoint a Task Force to make proposals as to how this principle should be put into effect.

Accordingly, a 15-member Task Force was appointed, composed of faculty members and administrators from the nine campuses and from the Office of the President. The Task Force held several meetings, and submitted a progress report to the President on March 12, 1971. He transmitted this as a discussion document to the Chancellors and to the relevant statewide Academic Senate Committees, calling for careful study by members of the faculty and administrative staff. Their responses were sent to the President

June, 1971.

Two conclusions have emerged from the study and discussion of this earlier report.

First, the principle that new opportunities should be provided for part-time study toward degrees has been generally endorsed. It is recognized that a legitimate educational need has been identified, and that the University of California has an important role to play.

The second conclusion is that the new programs must be carried out in ways consistent with the mission of the University of California. Moreover, the development of these programs require recognition of the following points:

1. The University is an institution of high quality, and will not accept a dilution of its standards.
2. The University faces a period of scarce resources. Hence, the inauguration of new programs requires the securing of new resources, combined with the most effective possible use of those currently available.

This Report deals directly with these requirements and suggests ways of developing extended degree programs consistent with the University's purposes and standards.

The Students

Discussion of degree programs for part-time students must start with the students, for they represent the principal reason for making these proposals.

The first question to be considered is whether or not significant numbers of people are eager to participate in such programs. As the analysis below and in Appendix A suggests, there can be no final assurance of this until applications are invited for enrollment in specific, defined and approved programs. Nonetheless, there is persuasive evidence that there will be no lack of applicants for these programs.

Experience Elsewhere

Programs of the type proposed here are not entirely new, and some useful conclusions can be drawn from the experience of other institutions.

Harvard University has for some years offered degrees to adults on an extended study basis in conjunction with a consortium of institutions comprising the Commission on Extension Courses. The curriculum has comprised a general liberal education. General education goals have similarly been at the center of the program offered by the University of Oklahoma -- one which has attracted national attention because of its high quality.

Specialized career-oriented degree programs have also been available at a number of universities to part-time, employed students. These have generally been successful because of the strong applied-learning orientation of persons involved in the practical world of work and their evident need for continuing education. What is striking is that these programs which are non-applied in their content should prove to be viable and in great demand.

The California Potential

Success elsewhere is likely to be more than matched in California. For one thing the educational level of the population of California is significantly higher than the national average -- and education tends to increase the demand for more education.²

²In 1968, there were 10.6 million persons 25 years of age or older in the U.S. who had between one and three years of college education. This was up from 8.7 million in 1960. Projections to 1985 estimate the size of this group at more than 16 million. (U.S. Bureau of Census, STATISTICAL ABSTRACT OF THE UNITED STATES, 91st edition [Washington D. C., 1970], Tables 157, 158.) This is likely to be an underestimate if there is any extensive proliferation of part-time programs at the lower division level. During the period 1960-68, California experienced a 22% net increase in population (U.S. Bureau of the Census, 1970 Table 6). (Continued on page 6.)

Students

This factor undoubtedly contributes to the second reason for assuming a high demand here for extended degree programs -- the massive size and scope of the University of California's University Extension program.

Finally, we have had a large number of requests from individuals and from institutions all over California for programs of the kind proposed in this report.

More specific data are, of course, needed on the extent of the potential student body. However, all available evidence points to a strong orientation on the part of the population toward educational opportunities. The University of California is a world-renowned institution, and, hence, a highly desirable affiliation for those seeking higher education. If we create new channels of accessibility to the University, the problem we will probably confront is not one of determining if a market exists, but rather, one of distributing limited resources.

Student Characteristics

We have indicated that degree programs based on part-time study will be attractive to some of those currently enrolled full-time in the University of California. Nonetheless, our assumption is that the larger number of applicants will be drawn from more mature age groups.

Based on previous studies of the latter groups³ and our own experience in University Extension we can assume that the majority of applicants for extended degree programs will be people with some college experience -- from white collar occupational groups (especially professional and technical) -- and from urban and suburban areas.

Thus, if we did no more than to establish such programs and waited for students to materialize, those who appeared would look rather like the student bodies currently enrolled in programs of continuing education, together with some who share the characteristics of students in regular full-time session.

As is well known, interstate mobility is highest among young adults, thus bringing to California a substantial pool of potential participants in higher education programs. Throughout this period, the population of California has manifested substantially higher educational attainments than the average for the U.S. population. Thus, there are few, if any, states in which there is a larger pool of potential recruits.

³See, for example E. deS. Brunner, D. Wilder, C. Kirchner, J.S. Newberry, AN OVERVIEW OF ADULT EDUCATION RESEARCH, (White Plains, New York: Fund for Adult Education, 1958); J.W.C. Johnstone and R. J. Rivera, VOLUNTEERS FOR LEARNING (Chicago: Aldine, 1965); J. London, R. Wenkert, and W. O. Hagstrom, ADULT EDUCATION AND SOCIAL CLASS (Berkeley, Calif.: Survey Research Center, University of California, 1963).

Certainly, these audiences should be served. Yet the rationale of extending accessibility to the University should embrace more than these groups alone. Intensive efforts must be made to reach those who do not fit within these categories:

- those whose intellectual potential is far greater than their formal school record;
- people of lower-income groups, including members of minority communities and returning veterans;
- residents of the inner city on the one hand and of small towns and rural areas on the other.

Motivation

Some of those who have already indicated their desire to enroll in extended degree programs are interested in knowledge for its own sake. The award of the degree for them is primarily symbolic. What interests them is the prospect of engaging in a systematic, sequential, rigorous course of study which will challenge their capacities and enlarge their understanding of the world.

The greater number of potential applicants, however, will be motivated by the applicability of their studies to specific life goals, most particularly to their careers. This does not mean that the sole interest among this major group is to attain a degree. No doubt it will be true of some of them, as it is true of some students in existing full-time programs. But more generally, part-time students will tend to be attracted to the kind of work which bears on their experience.

Some in this category are already in mid-career, in industry and government for example, and are looking for degree programs which will enable them to seek positions entailing wider responsibilities or higher levels of experience (See Appendix B). Other, dislocated by the troubled conditions of the economy, may look for better prospects via a shift from one career to another. Still others, who hold jobs not fully utilizing their capacities, may look to these programs for help in qualifying them for opportunities requiring advanced educational work.

These comments do not, of course, provide a full delineation of the students we propose to serve through part-time degree programs. The Task Force has previously called for studies to provide more precise estimates of the size and characteristics of the potential audience. These studies are now under way, and data will be distributed as they become available (see Appendix C).

Even at this stage, however, it is obvious that we shall have more than enough qualified, highly motivated applicants from a variety of backgrounds to provide the student bodies for the pilot projects we call for in this report.

RECOMMENDATION

1. Every effort should be made to insure that the students in extended degree programs are drawn from all segments of the population of California and all parts of the state.

Programs

The 1970 All-University Faculty Conference, in recommending the establishment of degree programs for part-time students, insisted that while the new programs might differ in important respects from existing ones they must be of comparable quality.

University curricula and instruction are currently the subject of much debate throughout the country. The University of California has earned a distinguished reputation over the years for the overall quality of its offerings. Its faculty and administration are justly protective of this reputation, and can reasonably ask that before important changes are undertaken the most careful consideration be given to matters of admissions, curriculum, degree requirements, off-campus study, instructional methods, faculty and counseling.

We address ourselves to these questions in this section, after first establishing specific recommendations concerning the degrees to be offered for part-time students.

The Degrees

There is a consensus within the University in support of the proposition advanced by the Task Force that, in offering baccalaureate programs for part-time students, we would be deploying our resources most appropriately at the upper division level.

There are already abundant opportunities for lower division study. Discussions should be entered into with community colleges for the purpose of closely articulating their offerings with the proposed programs. University Extension should be encouraged to examine its offerings in relation to extended degree programs.

Beyond the baccalaureate, there has been general acceptance of the proposal that a number of master's degree programs be made available to part-time students.

RECOMMENDATIONS

2. The University of California should offer programs of part-time study at the upper division level leading to baccalaureate degrees.
3. Discussions should be entered into with the community colleges for the purposes of closely articulating their offerings with the proposed programs. University Extension should be encouraged to examine its offerings in relation to extended degree programs.
4. The University of California should offer programs of part-time study leading to graduate degrees at the master's level.

Programs

Admissions

Admissions will be open to all who are capable of University work and are likely to profit from the experience. Among the potential applicants for these programs are many who would readily qualify under prevailing admissions requirements. However, if these programs are to constitute more than a very minor increment to the current offerings some changes in admissions practices are indispensable. New criteria need to be devised to take account of such factors as serious intent, maturity and motivation among potential students. For example, it has been shown that there is a correlation between academic performance and a scholastic orientation to college, i.e., students who are oriented to college for academic content rather than for social reasons or "to get away from home" tend to perform at higher levels. Similarly, students who have clear occupational goals or commitments to a particular field of concentration tend to manifest higher performance than those who do not. Means should be devised to test for these findings, as an aid to prognosis for success among those mature adults who constitute the potential audience.

The importance of such "non-traditional" criteria in the success rates of students within the University of California is attested by the high levels of completion and comparable grades attained by students admitted as exceptions to the formal admissions requirements.⁴

In our view, then, what is called for is not an open admissions policy (inasmuch as other institutions already offer or will be developing such programs, no one in California need be denied an opportunity to enter a degree program) but rather the establishment of a somewhat more varied set of criteria than are presently applied. And these criteria must include the means to determine whether the applicant is capable of University study.

This can be accomplished in a number of ways:

1. Examinations

The problem of devising examinations which will determine the appropriate starting point for an entering college student is not a new one, and is not confined to the part-time, older student. A number of different systems have long been in use which permit an individualized approach to placement of the student into the appropriate position in a curriculum, based on his prior achievement. Among national programs, one of the earliest was the Advanced Placement Examination of the College Entrance Examination Board. This examination tests for level of attainment in much of the college freshman curriculum, permitting colleges to grant advanced standing to those entrants who have acquired the material in high school or elsewhere.

⁴University of California, University Bulletin, 20,4 (September 27, 1971), p. 16; 18,5 (September 8, 1969), p. 16.

One of the newer programs is the College Level Examination Program (CLEP). This program provides general examinations in the liberal arts areas of English composition, the humanities, mathematics, natural sciences and social sciences - history. A number of universities have adopted CLEP including the University of California on an experimental basis. CLEP tests levels of achievement equivalent to those attained through the lower division, the norm being derived from a national sample of regular students who have successfully completed two years of college.

The tests cited above seem to be appropriate instruments for ascertaining the level of achievement of adult students in the traditional subject areas. However, in establishing admission criteria for the new part-time programs, we need to go beyond traditional assessment procedures. One such possibility is a placement test devised to measure possession of special kinds of knowledge derived from actual work experience which may be related to a course of study. The purpose of the examination is to determine the extent of such knowledge and to place the student in an appropriate course of study.

2. Conditional Admission

Conditional admission could allow students to work in some areas of the program while "deficiencies" in other areas are being made up by study outside the program.

3. Concurrent Enrollment

Concurrent enrollment through University Extension in appropriate courses could provide an opportunity for students not yet admitted to the University to test their ability. Credit earned in this manner should be transferable to a degree program following admission.

4. Preparatory Programs

In most other institutions offering such programs, inadequate attention seems to have been given to preparatory programs. Given the admissions requirements which will be associated with the programs at the University of California (as suggested earlier, these requirements must be more varied than the existing practices and yet designed to provide entry only to students of high caliber), an extensive and elaborate array of preparatory programs will be indispensable. These should be established primarily through University Extension.

Programs

RECOMMENDATIONS

5. Admissions policies for part-time students, while accepting only those capable of University work, should employ a variety of techniques to determine the applicant's potential. Prior academic work should be an important consideration. For admission to graduate study, a baccalaureate degree from a recognized institution should be a prerequisite. However, extensive use also should be made of examinations, with particular attention to those designed to assess relevant work experience and accomplishment.
6. Conditional and concurrent enrollment should be made available.
7. Necessary preparatory programs should be established primarily through University Extension.

Curriculum

Part-time students can be expected to share with present full-time students the general educational goals appropriate to a liberal education. In fact, as the University's experience with such groups as returning veterans has shown, the interaction of more mature with younger students in traditional educational programs has benefited both groups. Thus, many part-time students will find their educational needs met within one of the existing University programs. Appropriate adjustments must therefore be made in schedules and locations in order to facilitate enrollment of part-time students in these programs.

Hence, increased access to existing curricula is essential. However, we believe that this alone is insufficient. As we have already noted part-time students will often bring to their studies more extensive and varied experience and different motivations than those of younger full-time students.

Consequently, new programs will be required, designed to take advantage of the special experiences, achievements and specific life goals of the part-time student.

Programs

The Public Interest

We do not propose to offer a definitive list of criteria for the selection of fields in which new programs should be developed. However, one consideration seems to be particularly pertinent. From its inception, the University has contributed substantially to the public interest. Since the concept of extended degree programs itself springs from a sense of service to the community, we can make a major contribution to the total community by designing new programs in areas of great social need. The demand for educated people in these broad areas will continue to grow, and the University will play an important role compatible with its purposes and particular competence.

Illustrative of these areas of social need are:

Government Service The demands for services by governmental agencies--federal, state and local -- continue to grow. As the size and number of these agencies grow, their ability to perform at the required level of effectiveness is severely tested. Moreover, their scale tends to increase the danger of alienation of the individual from his government. The University could perform a profoundly important public service by providing degree curricula designed to develop able and humane public servants skilled in administration and sensitive to the needs of the public they serve.

As Appendix B suggests, the effective demand in this area is large - considerably larger in fact than the University of California alone will be able to handle.

Health Services Pressing problems associated with the delivery and administration of health services accents the need to help practitioners in the field -- many of whom lack degrees -- develop their ability to organize and administer new institutions, and increase their understanding of patient and community needs. Among public educational institutions in the state, only the University of California has the full range of resources to provide educational opportunities at the highest level in the health sciences.

Other Areas of Public Service By way of example, the recently approved M.A.T. program in Biological Sciences, developed at Irvine specifically for part-time students, is a curriculum responsive to the national concern with environmental problems.

The field of urban studies offers another area in which extended degree programs would appeal not only to people building careers in the field but also to those who are seeking to improve their ability to undertake leadership roles of various kinds in their communities.

Programs

RECOMMENDATIONS

8. Existing curricula should be made more accessible to part-time students.
9. New curricula should be designed with particular reference to the needs of part-time students.
10. In the selection of new curricula, a principal consideration should be the potential contribution to the public interest.

Requirements for Degrees

Candidates for extended degrees will be expected to meet requirements no less demanding than those now expected of full-time students. Moreover, for part-time students admitted to existing programs the requirements will, in fact, be whatever is normally required in those programs. For some of the new programs, however, the curriculum design will be based on principles which imply different kinds of requirements.

Thus, the common practice of awarding the degree on the basis of accumulated credit units and grade point average through study in a large number of discrete courses would tend to confront many part-time students with formidable obstacles. Chief among these is that the profusion of courses provided in the regular sessions on campus is not likely to be available to part-time students unable to attend campus on the regular schedule. Consequently, to establish degree requirements based on a wide range of choice from an extensive array of courses would be discriminatory.

The alternative -- suggested not only by practical necessity but also by sound curriculum principles long used by many leading universities is to build programs based on broad aggregations of knowledge rather than on smaller units. Thus, each new curriculum should be built around a carefully planned, integrally related series of educational experiences. In addition, the principle of electives should be retained to enable the student to undertake work that expresses his individual interests. The electives, however, should enhance and elaborate on the required elements in the program and not merely serve as opportunities to acquire additional units.

Programs

Evaluation of Student Achievement

No single method of evaluating student performance is proposed here. Certainly the conventional methods -- written examinations, term papers, etc., devised by the individual course instructors -- will be widely used. However, we strongly urge experimentation with a variety of other approaches which appear to be especially well suited to these kinds of programs:

1. Credit by examination, while already used by the University of California would be particularly appropriate to the extended degree framework.
2. Comprehensive written and/or oral examinations, or major papers encompassing the material of several courses or disciplines.
3. Techniques for evaluating performance in field work.
4. Recognition of creative accomplishment in the arts.

The evaluative techniques described above are commonly associated with the kind of curriculum planning which begins with a determination of clearly defined objectives, and then identifies the competencies which the student is expected to attain in order to achieve these objectives. Consequently, the basic consideration in evaluating each stage of student performance is progress toward the prescribed objectives. Each element in the curriculum is related to these competencies; but there is considerable latitude in accepting work taken in other institutions, by independent study, or by other means -- as long as the work record indicates demonstrable progress toward the defined objectives.

This is not, of course, a novel idea. In one form or another it has been widely used both in this country and abroad, and it appears to be compatible with the kind of programs proposed here.

Testing of instruments for evaluation

Techniques for evaluating student performance for extended degree study are not fully developed, especially with respect to defining and measuring progress toward competencies. It is especially important, then, that research, development, and testing of evaluation instruments be viewed as central elements in the planning of extended degree programs, and substantial work in this area must be initiated immediately. In this context, consultation with such national organizations as CEEB and ETS would be highly desirable.

Residence Requirements

Academic Senate Regulation 612 requires a minimum of three terms in residence for any University of California degree, graduate or undergraduate, and Regulation 630 further specifies that at the baccalaureate level 35 of the final 45 units must be completed in resident status. (See Appendix D)

Programs

These requirements restrict part-time study, and would make the development of the new degree programs, especially those with off-campus components, virtually impossible.

We propose, therefore, that these and other requirements related to residence be appropriately amended.

Certificates

The primary charge to this Task Force is to make recommendations concerning the establishment of new degree programs. However, we also urge that consideration be given to the granting of Certificates in recognition of completion of one or more stages toward the degree. To those who eventually discover that the completion of a full-scale degree program is a more formidable task than they had initially envisioned, a Certificate will offer a useful validation of their efforts over a shorter period of time.

RECOMMENDATIONS

11. Candidates for extended degrees should be expected to meet requirements which, though sometimes differing from those applied to full-time students, will be equally demanding.
12. Attainment of these degrees should be based on the mastery of curricula built around an integrated set of educational experiences.
13. Experimentation should be undertaken with a variety of student evaluation procedures including comprehensive examinations, and assessment of field work and creative accomplishment.
14. Recognition should be given to work completed outside the curriculum, including transfer credit and credit by examination. Transfer credit should be accorded sympathetic appraisal in relation to the goals of the specific program, especially credit earned through the University of California, including University Extension.

Programs

15. A study should be undertaken to determine the best means of insuring transferability to extended degree programs of credit earned through other agencies of the University of California, including University Extension.
16. Objectives of the new programs should be clearly defined, and competencies to be obtained should be indicated and appropriately assessed.
17. Studies should be undertaken immediately to discover or devise suitable procedures for evaluation of student achievement.
18. Academic Senate regulations governing residence requirements should be amended to remove barriers to the implementation of extended degree programs.
19. Certificates should be awarded in recognition of successful completion of one or more stages toward the degree.

Locations

Some extended degree students will be able to complete their entire program on one or more of the University's campuses. The scheduling of a greater number of regular classes in the late afternoons and evenings would make possible a considerable increase in part-time enrollments. Additional opportunities on weekends and in the summer would enlarge the part-time student body still further. Indeed, if there were room during the normal daytime classroom hours, many part-time students would be able to attend; and the coming of the four-day work week should augment the applicants for day-time study.

Even so, a substantial component of off-campus study is inseparable from the concept of extended degree programs. To insist that all students attend a campus regularly is to rule out a large number of qualified students who do not have ready access to a University of California campus.

The responses from the campuses to the Task Force Report of last March, indicate a general acceptance that provision must be for off-campus study. Yet the replies also indicate concern about the prospects for maintaining quality when programs are offered at a distance from the University's major instructional and research resources.

It should be emphasized, however, that we are not proposing degree programs in which most of the students have no contact with any of the campuses.

Programs

Students living within a reasonable distance from a campus should be given various kinds of opportunities to use campus resources. Some will be able to attend a campus in the evening. Periodic weekend sessions should be provided. Residential programs on campuses can be held during part of the summer. (Even those programs which rely heavily on correspondence study, such as the British Open University and the University of Oklahoma, provide residential summer study.)

Learning Centers

For a program which extends the University into the community, however, it is inappropriate to rely exclusively on campus facilities. We therefore propose the establishment of a number of Learning Centers in suitable locations throughout the state. Here, programs developed on the campus would be made available to extended degree students.

These centers will be of various sizes. A few, located in areas serving a large population at a considerable distance from any of the University campuses, should be of a substantial scale. Others, much smaller, could be created without major expenditure of funds. Typically, they would provide a few classrooms and offices for seminars, tutorials, and counseling; also learning carrels; viewing facilities; and a small library. Facilities of this kind could be established by leasing and remodeling small buildings, or, in some cases, by securing use of space for evening and weekend use in existing educational facilities. (See Appendix E.)

Learning Resources

As indicated above, those extended degree students who do not attend a campus regularly must still have access to the learning resources which a campus provides.

Campus libraries, will, of course, be used by extended degree students. They will tend to use the library in the evenings, on weekends and in the summer. Library budgets will have to be supplemented to insure that libraries remain open during the periods of heaviest use, as well as to provide for the additional acquisitions the increased student load will necessitate.

Provisions must also be made for the use of library materials at other than campus locations. The local Learning Centers can play an important role here. The University libraries should be involved at the initial planning stages, and should provide with additional resources, facilities for circulation of library materials between libraries and Learning Centers.

Programs

Coordination should be effected with other libraries -- educational, public, industrial -- to expand the availability of instructional materials to the extended degree students.

Access to computers and to laboratories, through both on and off campus facilities, is also of great importance to extended degree programs, and studies are needed to determine how this can be most effectively provided.

Academic Senate Regulations

A few Universitywide Senate regulations impose restrictions on off-campus study which would be inhibiting to these programs. For example, Senate regulations 694 sets forth certain restrictions on Master's programs at off-campus locations. We propose, therefore, that these and other restrictions related to off-campus study be appropriately amended. (See Appendix F.)

RECOMMENDATIONS

20. Existing campus facilities should be available to the part-time student, particularly in the late afternoons and evenings; on weekends; and during the summer. In addition, studies should be undertaken to determine the best means of providing access for part-time students to the necessary campus learning resources -- libraries, computers, laboratories, etc. -- and of augmenting these to the extent required.
21. Off-campus Learning Centers should be established as necessary to carry out the purposes of the programs.
22. Academic Senate regulations which impose restrictions on off-campus study should be appropriately amended.

Programs

Instructional Methods

We have suggested that, since extended degree students will be more widely dispersed than full-time campus students, provision must be made for off-campus study. This will involve substantial use of independent study, including correspondence courses and various new educational technologies.

As earlier indicated, independent and self-paced learning should constitute only one dimension of a program which also includes face-to-face contact with teachers and with other students.

In extending the University's teaching-learning environment to the community, no one medium of instruction is adequate to satisfy the many ways in which people learn. Thus, the University should develop and make available a varied and flexible system of learning opportunities.

Independent learning.

Much of this learning process will take place in:

1. the student's home, where he will use materials via reading lists; correspondence materials; tape; cassettes; and probably radio and television.
2. Learning Centers, equipped with new instructional technologies, including auto-tutorial laboratories, viewing rooms for television, film and tapes; terminals for computer assisted instruction; and telephone connections with campus dial access systems. (See earlier material on Learning Centers; also see Appendix E and G.)

Face-to-face learning

While autonomous, self-directed learning will prove extremely satisfying for some students, others will find it too solitary a process. In particular, those part-time students who have not been pursuing formal studies for some years will need the kind of guidance and reinforcement that comes from contact with skilled teachers and other students.

Then too, part-time students tend to be mature people who have exercised responsibilities of various kinds, and they should be unusually active participants in the learning process.

Ample provision must therefore be made for direct contact between teacher and student, in seminars, discussions, and tutorials. Some of this contact should occur, we have suggested, on the campuses themselves. But much of it can be provided in the Learning Centers, or simply in classes held in dispersed locations.

Programs

RECOMMENDATIONS

23. Substantial use should be made of independent study and of a variety of new instructional technologies.
24. New instructional technologies should be made available as elements in programs which also include personal contact with teaching staff and other students.

Faculty

We believe that ladder faculty must play a central role in the conception and implementation of extended degree programs and should have prime responsibility for:

1. Establishing the standards for the new programs.
2. Designing the curriculum. In some fields faculty members may wish to consult with representatives of the clientele to be served.
3. Preparing or supervising the preparation of procedures for evaluating student achievement.
4. Preparing courses on film, tape, and syllabi for use on TV, in Learning Centers and in homes. In this process, faculty members may wish to involve a variety of staff resources, including University Extension and media specialists. For this kind of programming, it will sometimes be preferable to draw upon the faculty resources of several campuses, thus assuring full use of the University's multi-campus capabilities.

Ladder faculty should also be engaged in teaching extended degree programs. Yet, the existing faculty already face a heavy burden of teaching, research, committee and public service responsibilities. Thus, enrollments in extended degree programs cannot be accommodated without an increase in the number of ladder faculty positions.

The problem of securing faculty involvement in the teaching of part-time students cannot be solved solely by an increase in ladder appointments. There are a number of other possibilities as the four following models illustrate:

Model A

By admitting a limited number of part-time students to existing campus programs, and rescheduling courses to provide them at hours convenient for working people, existing faculty would not be assuming a major additional burden.

This proposal would, in our view, provide an important service to well qualified students seeking access to the campus but now denied access under present regulations.

Prevailing enrollment and fiscal pressures on the University make it unlikely that this approach would accommodate more than a small number of part-time students. Moreover, its utility is limited only to those who live close to a campus and who are interested in established offerings. Thus, it does not fully serve the broader purposes proposed in this report.

Model B

The existing curriculum could be transmitted by television to places of work, Learning Centers, and other convenient locations in the community. In this kind of program, faculty would present their regular courses at the normally scheduled hours, and off-campus students would receive the same material simultaneously. Identical examinations would be administered to both groups.

Flexibility could be introduced by making the lectures available at other times by audio or video tape; and feedback could be provided by establishing telephone communication between the instructor and the off-campus students.

This model is already used at graduate schools in some universities, including Stanford. Los Angeles and Davis are now transmitting graduate engineering courses live to industrial and governmental facilities. Professional schools in the University have expressed interest in this idea.

We believe this is a valuable model, and we recommend that it be used more widely. Moreover, if the teaching is to be effective for the off-campus student, the faculty must adapt their presentations to the requirements of television, rather than using the camera as a means of transmitting standard classroom lectures. In so doing, the quality of their teaching may well be enhanced. But the process is complex and time-consuming, and will initially represent additional demands upon the faculty.

Moreover, while this method does reach out to students who are not able to attend campus regularly, it cannot be made sufficiently flexible to satisfy the requirements of the larger numbers of potential extended degree students. And, like Model A, it is a means for providing wider access to existing curriculum, rather than developing new kinds of curriculum which we have suggested.

Programs

Model C

The broader requirements of extended degree programs, including the offering of new curricula, could be satisfied by a substantial expansion of the University's ladder faculty. This would make it possible, as the Berkeley Campus Committee on the Extended University has suggested, for departments to provide faculty with leaves "for a three-year period during which time they could develop work for the extended university and be replaced in their home department by visitors." This, says the Berkeley committee, could "be made an attractive possibility to individual faculty members during certain periods in their careers" and it "would assure a quality program."

We believe this is an admirable idea. We can only speculate however, about the number of faculty who would be willing to take extended periods of time away from their regular departmental assignments. Were the number to be small, the range of curricula thus made available would be sharply limited, and the number of students served would be only a fraction of those qualifying for extended degree programs.

Model D

A modest expansion of ladder faculty, together with a substantial expansion of other teaching staff, could, under the conditions proposed here, achieve the same purposes as Model C.

Ancillary staff, both full-time and part-time, would be appointed to the appropriate non-ladder teaching titles--Adjunct Professor, Clinical Professor, Lecturer, and so on. All would therefore, be members of the University faculty, appointed under existing procedures, and required to meet all the qualifications of appointees in their respective series.

Employment in these teaching categories is already a common feature of the University's program. However, the mix of ladder and non-ladder appointments would tend to differ in the case of the extended degree programs, with a higher proportion of non-ladder faculty than currently prevails.

The non-ladder faculty would undertake a variety of teaching responsibilities, under the general direction of ladder faculty. Most of their teaching would be off-campus. However, they should also be drawn into teaching in the full-time, on-campus program in order to preclude their becoming a completely separate and isolated faculty. A substantial number of tutors would also work under appropriate faculty supervision.

Recognition of Extended Degree Work

The extent of ladder faculty participation in extended degree programs will be heavily dependent on the recognition given this work for purposes of merit increases and promotion. We urge that full weight be given to the various kinds of faculty involvement in these programs by Academic Senate review committees and by administrative officers.⁵

RECOMMENDATIONS

25. Ladder faculty should undertake the prime responsibility for establishing standards, designing curriculum and supervising the student evaluation process.
26. Ladder faculty should be involved in the teaching of extended degree programs.
27. Additional ladder faculty should be appointed to help staff these new programs.
28. Additional non-ladder faculty should be appointed to supplement the work of the ladder faculty, especially in off-campus locations.
29. Full consideration should be given to the work of faculty in extended degree programs when making decisions concerning merit increases and promotions.

Counseling

Part-time students have particular need for academic counseling services. Typically, they have been away from the classroom for some time. They need guidance in assessing the relationship of their work and other experience to their prospective study programs. They need information on ways in which they can refurbish their study and research skills. Moreover, to the extent that new extended degree programs vary in design and format from standard college and university programs, many students are likely to require careful, individual guidance. For those members of low-income and minority groups who, despite strong motivation and potential, have been deprived of the opportunity for college or university study, the need for intensive academic counseling will be especially great.

Non-academic counseling services must also be provided, since the part-time student will typically be involved in a variety of other responsibilities.

⁵University of California Administrative Manual, Section 51-1d(1).

Programs

RECOMMENDATION

30. An extensive program of academic and non-academic counseling should be continuously available both on and off campus.

Pilot Programs

We are aware that each of the above proposals contains some assumptions not as yet fully tested. Consequently we propose to begin with small-scale pilot projects. The first of these should begin by fall of 1972, and others as soon thereafter as possible, with expansion proceeding beyond the experimental stage as we acquire experience and as resources become available.

A prime consideration in the design, selection and funding of pilot programs should be that they provide systematic research data needed for the further development of extended degree programs.

Persons responsible for the conduct of the pilot programs will be expected to institute procedures for assuring continuous feedback from participants--both students and instructors--about the strengths and weaknesses of the program, such as their difficulties with the curriculum, instructional materials, counseling procedures, allocation of study time, the manner of classroom instruction, availability of instructional resources off the campus, etc. The intent here is both to facilitate modification of ongoing programs and to provide a pool of experience relevant to the planning of future programs. There are a number of models for such a monitoring operation already in existence--some simple but effective ones are now in use at the Open University in Britain. The research staff of the Office of the Vice President--Public Service Programs, will be available to consult with persons setting up pilot programs concerning the appropriateness of various techniques, and will disseminate the resulting information.

In order to further our knowledge about the processes whereby people make decisions to participate in such programs, systematic studies should be undertaken of applicants, participants, drop-outs, and enrollees in competing programs, including traditional, full-time degree programs. These studies will also serve the function of providing assessment of the desire for part-time programs among persons now enrolled in full-time programs, thereby furnishing data for a consideration of the relationship between extended and conventional programs. Such studies are best undertaken by a single agency, either in the office of the Vice President--Public Service Programs, or under contract to some other competent organization.

We recognize that outside the University this deliberate pace, with growth proceeding on the basis of careful testing, may be received with a good deal of impatience. Other institutions in fact, may gain wider attention by moving into this field more rapidly and in more spectacular fashion.

However, we are concerned not only that extended degree programs be instituted, but that they grow and flourish as an integral part of the University's instructional program. This can best be accomplished by careful planning and systematic testing of the program.

RECOMMENDATIONS

31. Initial pilot projects in extended degree programs, at both the baccalaureate and the master's level, should be instituted within the University of California by the fall of 1972. Expansion beyond the experimental stage should proceed as experience is acquired and resources become available.
32. A prime consideration in the design, selection and funding of extended degree pilot programs should be their potential for providing data pertinent to the development of the University's capability in this area.
33. The experience gained in each pilot program should be made available throughout the University.

Organization

The ultimate success or failure of extended degree programs will depend upon a number of crucial variables. One of the more significant of these is the discovery and implementation of suitable organizational arrangements.

The problem is one of considerable complexity. We are seeking to create within a multi-campus system, institutional frameworks which will provide for innovation and initiative, yet which remain within the University's established administrative structure. This approach is calculated to produce programs which will make both a valuable contribution in themselves and have a creative influence on the University as a whole.

Organizational arrangements for these programs should accommodate four main program objectives, as follows:

1. To extend University degree programs to part-time students studying on or near a University campus or at far distances from a University campus.
2. To facilitate and foster intra- and inter-campus cooperation in the development, offering and administration of these degree programs.
3. To encourage the innovative use of educational media and the organization of knowledge in new and imaginative ways for the purpose of teaching.
4. To provide the alternative of part-time degree study to regularly enrolled full-time students.

In considering the various organizational possibilities, we looked first to the campuses. There is a critical need for the campuses to develop hospitable organizational environments for extended degree programs, as such programs, in order to flourish, must draw on the strength of the University's faculty, campus by campus. At the same time, there is need for some form of University-wide organization to achieve the four purposes listed above.

Let us first examine some of the options for campus organization, then those for Universitywide.

Campus Organization

This section deals with single campus organizational arrangements for these programs. Such campus-based programs would characteristically include work taken both on and off campus.

Options for campus organization are several and varied. This is not surprising, given the diversity of existing arrangements and the distinctive historical development of each of the campuses. Some nonexclusive possibilities are:

Organization

Option 1. To integrate extended degree programs into existing departments, schools and colleges on each campus and to create a campus-wide administrative unit to deal with the special scheduling, counseling, advising and curricular problems of part-time students.

Advantages

The principal advantage of this option is that the part-time student would be indistinguishably absorbed into established academic programs whose faculty would be in control and transferability between full and part-time status would be assured.

Disadvantages

The principal disadvantage of this option is the likelihood of an uneven response from existing academic units and the probable ultimate dominance of conventional styles and offerings over whatever innovative curricula and instructional methods may be attempted or desirable for part-time students. Moreover, the arrangement would work against the full flowering of intra- and inter-campus cooperation. Similarly, it would be less accommodating of the varying needs of part-time students than of the established and familiar needs of students enrolled full-time.

Option 2. To develop extended degree programs within those existing campus-wide or college-wide academic units, whose present responsibilities include the fostering of educational change and innovation (e.g., the Division of Undergraduate Studies at Riverside, the Division of Interdisciplinary and General Studies at Berkeley).

Advantages

The principal advantage of this option is that the new programs would be attached to established units drawing mostly on ladder faculty who are already committed to educational experimentation and innovation. If enabled to buy faculty time from other academic units and to devise curricula, such a unit would be particularly well suited to innovate, free of the narrower focus and interest of the average, single discipline department. Moreover, such units, by virtue of their broader responsibilities, could share administrative overhead, thus reducing costs that would otherwise be larger if supporting only a single program.

Disadvantages

The principal disadvantage of this option is attributable to the diffused rather than the focused nature of such a unit. Rather than mounting a coherent and integrated effort in behalf of interconnected educational objectives, such a unit might tend either to provide administrative cover for unrelated departmental probes into new areas or for programs which have otherwise found an inhospitable reception in other parts of the campus.

Option 3.

To develop a new campus-wide college or division with responsibility to develop and administer the subject program along or in close cooperation with similarly directed programs, e.g., University Extension, Summer Sessions.

Advantages

The principal advantage of this option would be similar to those noted in Option 2 above. In addition, however, this structure would be strengthened by the advantage of grouping or coordinating a variety of different, yet compatible educational functions. (One possible model of such a unit is already in the planning stages at Davis.)

Such a college or division would be administered in much the same way as comparable units: faculty FTE would be assigned to the unit, supporting staff and resources would be made available on the basis of prevailing indices of resource allocation and the administrative officers of the unit, along with its faculty, would enjoy the same prerogatives and be subject to the same burdens and constraints as similar campus units.

Faculty FTE would be used to arrange joint appointments with other academic units on the campus and to form the nucleus of a permanent faculty.

Disadvantages

The principal disadvantage of this option is more attitudinal than functional. Such a college or division might be viewed as insufficiently linked to the departments or other academic units thus giving rise to questions about standards and quality. Moreover, it might be viewed as an essentially autonomous and marginal educational program rather than one ultimately as central to and reflective of the University's norms and purposes as are today's offerings.

Organization

There are other possibilities for campus organization, but the three above are generally illustrative of the main choices. We will defer our recommendations on campus organization, however, until we have considered the role of the University as a whole, for the elements of large-scale, off-campus instruction pose unique problems for whatever campus structures may ultimately be preferred.

Universitywide Organization

There are nearly as many organizational arrangements possible on a Universitywide basis as there are for a campus-based program; and they are probably as controversial. Some non-exclusive possibilities are:

Option 1. To facilitate campus initiated and administered programs, especially those offered off-campus, by asking the President's office to render essentially the same staff services to these programs as it now does to established ones.

Advantages

The principal advantages of this option are 1) it is familiar to both the Office of the President and to the campuses; 2) it requires the least structural change; and 3) it provides some systemwide coherence to an otherwise organizationally diffuse program.

Disadvantages

The principal disadvantages of this option are 1) it places the future of the entire program with the several campuses whose enthusiasm has been uneven; 2) it permits campus decisions on off-campus programs to be made almost unilaterally; 3) it promises little chance of fostering inter-campus cooperation; and 4) it eliminates the possibility of the beneficial cost effectiveness of large scale enrollments in off-campus programs obtainable through multi-campus programs offered around the state. Moreover, the fiscal difficulties with which the campuses are currently grappling makes the development of new programs all the more unlikely, if the initiative is left entirely to those already hard pressed to satisfy other immediate and unmet imperatives.

Option 2. To assign the on-campus portion of the program to the various campuses for administration and the essentially off-campus portion to a central administrative unit functioning under the direction of a Chancellor on one of the campuses (e.g. Education Abroad).

Advantages

The principal advantage of this option is that it gives maximum flexibility to the various campuses for campus-based programs while assuring a system-wide capability for the state as a whole with respect to programs offered at places distant from the campuses. Furthermore, it would guarantee that such campus-based programs would be developed under the review of a division of the Academic Senate and that degrees would be awarded by a campus.

Disadvantages

The principal disadvantages of this option are 1) the campuses may view this as an infringement on their autonomy; 2) the campuses would either fail to develop programs on their own initiative or abandon their interest to the central unit; and 3) the central unit would come to be wholly dependent on the manifest interest of the several campuses.

Option 3. To create a "tenth campus" specifically charged with the responsibility for developing programs statewide while leaving campus based ones to the interest and responsibility of the various campuses. This "tenth campus" would be headed by a Chancellor, and would have its own faculty, curriculum specialists, administrative staff, budget, and student body functioning without structural reference to the various campus operations except when joint appointments of faculty with a campus would involve both units. The "tenth campus" would have its own Senate, would devise its own curriculum and would award its own degrees. (This option is essentially the one chosen by the State University of New York in the form of newly created Empire State College.)

Advantages

The principal advantage of this option is the obvious administrative strength that would be afforded the new program. The autonomy and coherence of a separate unit headed by a Chancellor are, in terms of institutional leverage, self-evident. Programs, plans and operations would develop within a strong and viable administrative unit with fixed and independent discretion.

Disadvantages

The principal disadvantages of this option bear less on the structural arguments than on those related to the perceived quality of the program and the worth of the degree. These are both substantive

Organization

and attitudinal concerns not very likely to be overcome by arguments detailing administrative and fiscal advantages. Moreover, such a unit would be seen by the campuses as a direct competitor for scarce resources and would be resisted. More importantly, the absence of linkages to the campuses would fail to build upon existing strengths or to enrich campus offerings with the methodological and curricula innovations that such a "tenth campus" would necessarily develop.

As with the proposed campus organizational arrangements, the above options are but illustrative of other main choices. We turn now to our specific organizational recommendations.

Organization for Campus-Based Extended Degree Programs

While we recognize that no single pattern may fit each campus equally well, we believe that these recommendations provide for essential programmatic and operational requirements along with considerable administrative latitude and discretion.

RECOMMENDATIONS

34. A college or division should be designated or created on each campus of the University to develop and administer extended degree programs. Such a college or division would:
 - i. be administered by a Provost or a Dean;
 - ii. be assigned faculty FTE; and
 - iii. receive resources and administrative staff consistent with University norms for such instructional units.
35. Effective coordination must be secured between the college or division created or designated to administer extended degree programs, University Extension, and the Summer Sessions. This can be achieved by incorporation of University Extension, Summer Sessions, and perhaps other programs into the said college or division.

If not incorporated into such a unit, other arrangements must be made to coordinate the overlapping interests of these various programs.

36. Development of the curriculum and appointments of faculty should follow established procedure for such instructional units, although it is likely that a disproportionate number of joint appointments and lectureships would be made.
37. The Provost or Dean should be appointed by, and responsible to, the Chancellor with the Vice President--Public Service Programs and University Dean of University Extension to be consulted in the appointment as is now the case with Chancellors' appointments of campus Deans of Extension.
38. The college or division should stand in the same administrative and academic relationships to the divisional academic senate and other campus administrative and academic units as do other such colleges or divisions.
39. The college or division should enjoy the same prerogatives and carry the same burden of accountability for internal organization as other colleges or divisions.
40. Degrees earned by students in the college or division should be conferred by the home campus as is presently the case for full-time students.

Universitywide Organization

The development of campus capabilities and the offering of campus based pilot programs should precede the offering of programs for the University as a whole as described below.

RECOMMENDATIONS

41. A Universitywide consortium of the campuses should be established to be called New College.
42. The responsibilities of New College should be:
 - i. To assist the campuses in the design and preparation of programs involving the use of new educational technologies in campus-based extended degree programs.

Organization

- ii. To engage in an ongoing program of research on the effective use of media in curriculum development and teaching, especially as they relate to extended degree programs.
 - iii. To facilitate the exchange of information throughout the University on extended degree programs offered in California and elsewhere.
 - iv. To make campus-based programs available statewide.
 - v. To develop degree programs to be offered statewide for part-time students unable because of distance or similar geographic constraints to enroll in campus-based programs.
 - vi. To foster multi-campus participation in such statewide programs.
 - vii. To develop degree programs for part-time students wherever such programs are not offered by a campus or can be developed by New College with greater cost effectiveness than can campus-based programs.
 - viii. To develop the capability to design, prepare, distribute and use various educational media in the programs to be offered by New College and by the campuses.
 - ix. To establish Learning Centers as necessary to develop the extended degree programs.
43. New College should be administered by a Provost and should be assigned faculty FTE, resources, and administrative staff in ways consistent with University norms for such instructional units.
44. The Provost should be appointed by and responsible to the President, through the Vice President--Public Service Programs and University Dean of University Extension.
45. Once New College is authorized, the Vice President--Public Service Programs and University Dean of University Extension, should in addition to his already assigned duties and those recommended here, also be assigned responsibility for the Summer Sessions.

46. Development of curriculum and appointments of faculty should follow established procedures for instructional units, except that Senate involvement would be through existing or newly established Universitywide Senate committees.
47. New College should enjoy the same prerogatives and carry the same burden of accountability for internal organization of its faculty as other colleges in the University.
48. The faculty should be mostly drawn from the various campuses, either on a joint appointment basis or by way of temporary leave. In addition, a core faculty of permanent appointees should be established to lend necessary continuity to the program. This core faculty should for the most part qualify for regular ladder-rank appointments, although a proportionately larger share might be appointed as lecturers, than is customary for University colleges.
49. The Provost of New College should be advised by an 18-member Board of Studies. In addition to the Provost of New College, who would serve as Chairman, the Board would be composed of: the nine Provosts or Deans of the college or division on each campus administering campus-based extended degree programs; one campus Dean of Extension and one Director of Summer Sessions both appointed by the Vice President--Public Service Programs and University Dean of University Extension; five faculty members at large appointed by the President; and the Chairman of the Academic Council. The Board of Studies would advise the Provost on all phases of the College's work. For purposes of program development and planning, the Provost would be further assisted by committees drawn from the campuses. Such committees would presumably be composed of representative elements of the appropriate colleges or divisions administering campus-based extended degree programs, as well as persons having pertinent administrative and academic expertise.
50. Learning Centers should be established only after closest consultation with the Board of

Organization

Studies, program committees, and the Chancellors of nearby campuses. Moreover, the administrative responsibility for such centers should be contracted by New College to University Extension. Such contracting with University Extension may very well be similarly advantageous for such support services as those involving registration, business and finance, counseling, publications and so forth.

51. Students graduating from New College would be awarded degrees by New College unless the course of study was taken in close association with one of the campuses, in which case and by mutual agreement the degree would be jointly awarded.

Financing

The problems associated with funding new University programs, when established ones are already fiscally hard pressed, are of considerable concern to the Task Force. Such problems similarly troubled the academic and administrative agencies and personnel with whom we consulted.

Our Report has been concerned with extending the University's instructional capabilities to qualified students desirous of studying on a part-time basis for University of California degrees. If the University is successful in providing such students with extended degree programs, enrollments in the University, over the long term, will significantly exceed present projections. Obviously, such increases in enrollment will substantially add to the University's base of needed resources; and it should be evident that in a time of scarce resources, the funds required to mount these programs cannot come from those already committed to established academic programs.

It must be remembered that the students to be enrolled in these new programs will be fully matriculated and making expected progress toward a University degree. The Task Force is convinced, therefore, that extended degree programs will be possible only if such students are counted in the University's workload, thus qualifying these programs for state support. The Task Force is similarly convinced, however, that further study and experience with these programs will reveal ways of reducing unit costs of instruction in the University as a whole. Our optimism is grounded in the following points:

1. The introduction of late afternoon, evening and weekend classes should significantly increase the utilization of existing campus facilities;
2. The more aggressive use of various new educational technologies, especially when coordinated University-wide by New College, will be facilitated by the enrollment of part-time students in multi-campus programs and by the pertinent services New College would render the campuses; and
3. The extension of University degree programs off the campus will reduce the need for the full panoply of additional capital facilities that would be necessary to accommodate a residential student body in conventional ways.

In a paper recently published by The American Council on Education, Virginia Smith of the Carnegie Commission observed that American higher education in past years has uniformly responded

Financing

to financial crisis by delaying expenditures (e.g., deferred maintenance, postponed capital projects, postponed expansion of existing programs or introduction of new ones).⁶ Such economies are only marginal and temporary. Moreover, as Miss Smith goes on to point out, they are not addressed to the central problem - the "productivity" of higher education:

"Substantial increases in productivity will likely be achieved only through changes in the educational process itself. Certainly the significant advances in productivity in industry have involved the processes of production rather than support functions. In higher education, such changes can occur only with experimentation and innovation in academic programs, in instructional techniques, and in the relationship of the student to the institution. Theoretically, an institution in financial crisis may have the motivation to undertake the experimentation, but it rarely has the risk capital needed."⁷

The development of extended degree programs by the University not only promises to open educational opportunity to students now denied it, but also to influence the "educational process itself." We wish to make clear, however, that such economies as are prospective here will be possible only if additional funds are made available to mount these new programs. An investment of "risk capital" will be needed if the University in the long run is to effect overall institutional economies of the sort suggested in this report. Obviously, such investments by the state would more likely be forthcoming once the University has completed in-depth studies and initiated experimental and pilot programs.

The Regents have appropriated the planning monies for such studies and for the planning of pilot programs. Funding for the operation of pilot programs during 1972-73 should be sought from private, federal and Regents funds.

⁶Virginia Smith, "More for Less: A New Priority," Universal Higher Education: Costs and Benefits (Washington, D.C.: American Council on Education. Background Papers for Participants in the Fifty-fourth Annual Meeting of the ACE, 1971), pp. 123-142

⁷Ibid., p. 127.

RECOMMENDATIONS

52. Fully matriculated students enrolled in extended degree programs should be counted in the University's workload for purposes of funding by the state.
53. A study of the appropriate registration and educational fee structure for the proposed programs should be undertaken immediately and in conjunction with University fee patterns in general.
54. The Vice President--Public Service Programs and the University Dean of University Extension should be authorized to proceed immediately with such studies as are needed to implement these programs, and with the planning and funding for such pilot programs as are appropriate.

APPENDIX A: Assessing the Market

Extended degree programs pose difficult problems in the matter of market assessment. Since the contemplated service is essentially a new one, it is not possible to utilize two major sources of market assessment--previous performance of existing services, and stated "intention to purchase" by potential consumers. Surveys of such potential consumers are likely to produce unreliable estimates of the market for the following reasons:

1. People are poor predictors of their own future behavior. Even where the service being offered is well-known, expressed intentions to buy have proved to be unreliable indicators of future behavior.
2. When the service is presently non-existent, people have little to go on in estimating its appeal. Decisions will ultimately depend upon alternative variants available from different sources, their relative prices, prestige value, etc.
3. The appearance of a new service can create demand where it previously did not exist. Advertising, plus access to the service by some people, cause others to "discover" that they too need it. This factor is especially pertinent when acquisition of the service is thought to bestow special qualities upon the owner, as in the case of education.

Because of these pitfalls in marketing research new consumer goods are often introduced only after a period of test marketing.

Inasmuch as our proposed programs will not be introduced at the same time but rather over an extended period, a continued monitoring of the situation will be required.

The above problems notwithstanding, it is possible to make some estimate of the probable market demand on the basis of objective considerations without reference to the perceived needs of potential consumers. Although the contemplated service is a new one there exist other services which possess similar characteristics. Moreover, a substantial amount of data exists on the characteristics of users of these services as well as on the distribution of such characteristics in the population. [See pp. 8-9 of the report] Thus some estimates can be made of the size of the pool from which a clientele will be drawn, and the projected future size of this pool.

APPENDIX B: Student Constituencies in Government and Industry

The area of public service occupations is currently undergoing a significant expansion, with a concomitant demand for increased educational experience among its personnel.

"With more effective systems of management, planning, budgeting, personnel, and administrative improvement, states will be ready to link up increasingly with universities in respect to both their research and training needs"¹

The sheer size of this work force is staggering (Los Angeles County alone employs more than 70,000 persons). An important impetus for education in this sector comes from the involvement of the Federal government in funding educational activities, through such programs as the Intergovernmental Personnel Act of the U.S. Civil Service Commission, the Public Service Careers Program of the U.S. Department of Labor and the Law Enforcement Program of the U.S. Department of Justice. Much of the allocated funding is for training at the college level. State and county agencies show a preference for enrolling persons already employed by them in university programs, with the objective of providing opportunities for promotion to more responsible positions.²

One example of such an endeavor is the program in Criminal Justice operated by University Extension, Los Angeles which is based on a sequence of upper division courses. This program was developed in cooperation with state and county agencies in related fields, and all students were selected from a pool of employees recommended by the agencies. The number of applicants was markedly higher than can currently be enrolled, and directors of the program estimate they could enroll many times the number now participating if resources were available. Demand is likely to increase still further as the program becomes more widely known.

Another example of the kind of demand which lends itself to the extended degree programs is in the area of management. There is a continuing demand for management personnel to staff not only private, commercial enterprises, but also public agencies and

¹ The Response of Higher Education to the Administrative Needs of the Public Service. Donald C. Stone. National Association of Schools of Public Affairs and Administration, April 1971.

² Continuing Continuing Education of the Public Service. Institute for Local Self Government, Berkeley, California, January, 1971.

non-profit organizations such as churches, hospitals and educational institutions. Lower- and middle-level management personnel are strongly oriented toward acquiring advanced degrees in order to facilitate their advancement in such organizations.

In response to this demand, the Los Angeles Graduate School of Management has inaugurated a new MBA program in management. It is contemplated that a part-time variant will be in operation by Fall, 1972 to serve currently employed management personnel.

APPENDIX C: Market Research

It is apparent that there exist areas in which current demand for extended degree programs is so extensive and well-known that little in the way of market research is necessary to establish the existence of demand. The public service sector is such an area. However, with respect to other areas there are gaps in our knowledge which must be remedied by a systematic research operation.

Such an effort would have the corollary benefit of expanding our knowledge in those fields where demand is already known to exist. Areas for research projects are outlined below.

1. Since a number of different models exist for extended degree programs, the relative appropriateness of the different models can be assessed. Though this would not provide a precise estimate of the total demand, it constitutes important input data for the establishment of any particular program.
2. At the upper division level, the opportunity to earn a degree through part-time study is especially relevant to the needs of persons who have dropped out of traditional four-year degree programs. We can attempt to learn why these people failed to complete the degree programs in which they were previously enrolled, and thereby better structure the new programs to meet their needs.
3. There are some occupational groups whose members are potential candidates for part-time study, but among which the value of degree programs in terms of occupational rewards is rather more ambiguous. In spite of the pitfalls of market research enumerated in Appendix A, it would be useful to attempt to improve our knowledge about potential demand among selected occupational categories.
4. There are substantial numbers of people who might benefit from and be attracted to extended degree programs, but who fall outside of the various categories discussed above. Among these are women whose primary responsibilities are in the home; unemployed persons; certain members of minority groups. These persons might well be surveyed at some point after the initial programs have become operational and the availability of such access to the University is well-known. They would then be in a position to assess realistically their own interest in such programs, if not actually to estimate the probability that they would take part.

The following schedule of research has been tentatively adopted:

1. A pilot interview survey of 100 University of California alumni will be carried out, with special consideration of, but not restricted to, persons who left the University without completing the Bachelor's degree. The survey will serve a number of functions. It will address itself to the reasons why persons, who, by definition are qualified for admission to the University of California, fail to complete a degree program. As an early study it will permit us to focus on the decision making process of individuals in deciding to undertake part-time study toward a degree. It will thus help us to understand the kinds of variables of which we must be aware in later studies. By studying University alumni, we will initially be able to ignore problems of eligibility for University work. Since the pilot survey will include persons who do hold bachelor's degrees, we can also focus on dimensions of importance relevant to the pursuit of graduate studies on a part-time basis. (The initial phases of this study are already underway.)
2. Several specific occupational groups will be surveyed, representing a range of occupational levels and orientations toward formal higher education. This will permit the testing of any preconceptions we may have about levels of interest among persons in a specific occupation, as well as which specific models for part-time study are most attractive to each group. Each group will comprise approximately 500 respondents.
3. Finally, after a number of our pilot programs are underway, and these new University programs are well-known, a survey of the adult population of California will be mounted. This will help us assess the market for our programs, relative to other alternative programs.

ACADEMIC SENATE REGULATIONS
on
RESIDENCE

Regulations of the Academic Senate

TITLE II. CURRICULA

Chapter 1. General Provisions

Article 1. Residence

610. Residence in any regular term is validated by a program of courses or other exercises approved by the Faculty of a student's college or school. For undergraduates this shall be at least six units of resident courses of instruction. Graduate students validate residence with programs of instruction or research approved by the appropriate Graduate Council.

*612. Except as provided in SRs 614 and 694, the minimum residence at the University of California required for a degree is three terms. Each Summer Session in which a student completes a course of at least 2 units may be used by him in satisfaction of half a term's residence. (See SR 688. For an exception to this rule see SR 690.)

614. With the approval of the dean of his college or school, a candidate for the Bachelor's degree who was in active service in the armed forces of the United States in the year preceding the award of the degree may be recommended for the degree after only one term of University residence in which he completes at least 16 units or passes a comprehensive examination in his major or field of concentration.

Regulations of the Academic Senate

Chapter 2. Requirements for the Bachelor's Degree

Article 1. General Requirements

*630. (A) Except as otherwise provided in this section and SR 614, 35 of the final 45 units completed by each candidate for the Bachelor's degree must be earned in residence in the college or school of the University of California in which the degree is to be taken. Not more than 18 of the 35 units may be completed in summer session courses on the campus of residence.

(B) However, a student who has completed in one of the Colleges of Engineering (Berkeley, Davis or Los Angeles) the requirements of the junior year of that college may complete the requirements of its senior year, not to exceed 54 units, in residence on another campus of the University of California (Los Angeles, Berkeley, or Davis) where the required courses are available, and may then receive the Bachelor of Science degree in the College of Engineering in which he was enrolled prior to such transfer.

(C) A further exception to the rule stated in paragraph (A) above is made in the case of students who meet the residence requirement as provided in SR 614.

(D) Faculties may permit, subject to the prior approval of the department concerned, a student who is enrolled in the Education Abroad Program to satisfy the residence requirement by earning 35 of his final 90 units, including the final 12 units, in residence in the college or school of the University of California in which the degree is to be taken.

Chapter 3. Requirements for Higher Degrees

Article 1. General Provisions

REGULATIONS AS TO RESIDENCE AND LENGTH OF STUDY

680. Every graduate student not a candidate for a degree must be in actual attendance on at least one regularly authorized course of instruction.

682. Except as provided in SR 694, no graduate student will be recommended for any degree except upon completing at least three terms of residence at the University of California, devoted to such a course of study as the Graduate Council concerned regards as a proper year's work, and upon complying with such other regulations as may apply to him. A minimum period of study of one term in the case of the Master's degree must intervene between formal advancement to candidacy and the conferring of the degree. (See SRs 610, 612, 690.)

684. Candidates for degrees may, at the discretion of the Graduate Council concerned, be given credit for residence at other universities, provided at least three terms are passed in residence at this University.

688. A candidate for a higher degree is regarded as a student in residence in a regular term only if he is actually attending authorized University exercises amounting to at least one upper division or graduate course of four units or more, or four units of upper division and/or graduate work, or, in a six-week Summer Session, to at least two units of similar work; or, in an eight-week Summer Session, to at least the equivalent of four units of work in a regular term. (See SR 690) (Am 24 May 68)

690. (A) For a candidate for the Doctor's degree, residence during Summer Sessions may be counted only under the following conditions: (1) enrollment in two consecutive six-week Summer Sessions counts as one term of residence provided the candidate is enrolled in each session for the equivalent of at least two units of upper division and/or graduate work as given in a regular term; or (2) enrollment in an eight-week Summer Session counts as one term of residence provided the candidate is enrolled for the equivalent of at least four units of upper division and/or graduate work as given in a regular term.

(B) For a candidate for a Master's degree, Summer Sessions count for residence as in (A) above, except that the two six-week Summer Sessions need not be consecutive. (Am 24 May 68)

APPENDIX E: Learning Centers

Learning Centers will be needed to provide the following services to students:

1. Information concerning University programs and regulations.
2. Counseling and guidance services.
3. Library and appropriate reference materials.
4. Facilities for seminars and small group discussions.
5. University tie line facilities for instruction, counseling and faculty interview purposes.
6. The necessary technology to support learning.
7. Course materials of all types (tapes, films, correspondence materials, etc.)

A plan of a model Learning Center is attached. The development of these facilities should be based on the experience which has been accumulated on the several campuses of the University.

Technically, the initial makeup of a Learning Center will be determined by the types of course design available therein, and the student population. It may begin with readily available devices and systems and progress to more sophisticated equipment as the Center matures. Numerous devices are available which lend themselves either to use in a Learning Center, or to use at home by the student. Alternatively they may be owned by prospective students. Some possibilities are shown in the plan. Planning for the Learning Centers should insure:

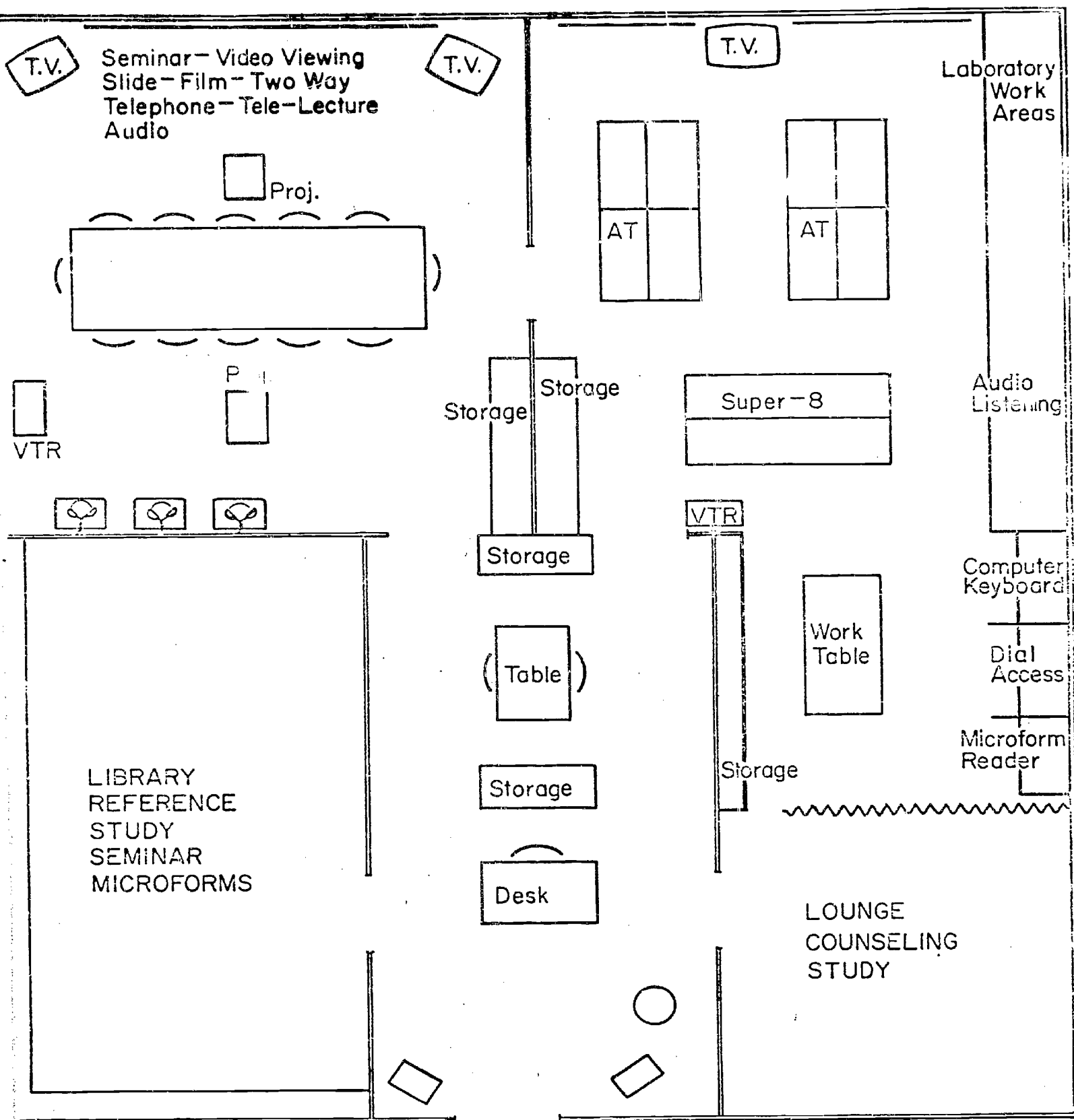
1. That the specifications of all technology used in the extended degree programs be standardized throughout the system.
2. That all equipment be, as far as is possible, low cost and of rugged construction.
3. That physical facilities be arranged on a modular basis so that the components can be assembled in a packaged form, and rapidly set up. In this way, it should be possible to expand a Learning Center's student capacity very rapidly. Packages and modules could be installed as required for specific courses.

Learning Centers will be developed in various locations in response to a wide range of learning requirements. While there may be some disfunctions in establishing a "standard specification" for Learning Centers, in that such an approach may lead to undesirable compromises, the design of such facilities can be accomplished most efficiently if it draws on the experience gained from prior efforts. The development of a series of standard specifications for modular components of the Learning Centers may prove to be a practical approach to sharing design experience without introducing undesirable restraints.

Faculty/student interaction still remains at the core of effective learning in extended degree programs. This can be achieved by augmenting effective use of technology, with periodic visits by faculty to the Learning Centers. In addition, student discussion groups could record their activities and questions which could then be evaluated by the instructor at his home base. In turn the instructor could respond through the medium of audio or video tape. Conference and two-way telephone calls on the tie-line could be utilized most effectively, linking groups from several campuses or Learning Centers at scheduled times. Lectures or seminars from a central point could be carried to any number of centers simultaneously using live television, the telelecturer or the electronic blackboard technique.

Extended degree programs will create several new requirements for communication, with needs for transmitting data, voice, facsimile, television and other forms of information between campus and Learning Center, and between campus and private homes. In addition, these communications must have the requirement for two-way transmission, and must be available to students as well as to faculty and support staff. Many of these communication needs will be met through conventional mail and telephone services, but others will require new delivery techniques if the extended degree programs are to operate efficiently. The University's response to these communication requirements should include careful projection and coordination of specific needs, consideration of all available alternatives, and development of detailed plans for comprehensive communication capabilities. Also, there are obvious advantages to coordinating these communications requirements with those of the University of California overall, rather than dealing separately with the needs of extended degree programs. The early planning study of communication requirements, and of approaches to meeting these requirements, should take into account all available alternatives, including mail, telephone, messenger, broadcast television, community antenna television systems (CATV), leased lines, microwave, and communication satellites. This planning should also be coordinated with other related planning currently underway within the University.

Every use should be made of existing learning resources personnel and equipment on University campuses. Experimental feasibility studies for a prototype Learning Center should be set in motion at an early date, to establish more accurately the costs and problems of operating a Learning Center.



HYPOTHETICAL PLAN OF A REGIONAL LEARNING CENTER

ASSUMES USE OF EXISTING STRUCTURES. ESTIMATED STUDENT POPULATION IS APPROXIMATELY 150 - 300.

ACADEMIC SENATE REGULATION
on
OFF-CAMPUS GRADUATE PROGRAMS

Regulations of the Academic Senate

Chapter 3. Requirements for Higher Degrees

Article 1. General Provisions

REGULATIONS AS TO RESIDENCE AND LENGTH OF STUDY

694. A school, department, or group of departments which offers a program leading to a Master's degree under the jurisdiction of a Graduate Division, may, in cooperation with University Extension, provide at a center or centers other than a campus of the University, a program of graduate instruction designed to satisfy, in full or in part, the requirements for that degree. Such off-campus graduate instruction shall be authorized, on the recommendation of the school, department, or group of departments concerned, only if, in the judgment of the Graduate Council concerned, the proposed program will afford distinct advantages to society and will not be detrimental to the standards ordinarily required for the degree. Programs of off-campus graduate instruction and study are subject to the following provisions:

(A) Requirements for a professional Master's degree may be satisfied in full by off-campus graduate study unless the Graduate Council concerned determines that a substantial part of those requirements may be more effectively satisfied by resident study on a campus of the University.

(B) Not more than one-half of the total unit and residence requirements for the degree of Master of Arts or Master of Science may be satisfied by off-campus graduate study.

(C) Each proposed program of off-campus graduate instruction must be approved by the Graduate Council of the Division concerned, and such approval shall be granted only if the Council shall have determined that the proposed course offerings, facilities, and staff are at least equivalent to those available on the campus of the University where the program leading to the degree is ordinarily offered.

(D) Each course to be included in an off-campus graduate program, and each instructor in such a course, if he is not a member of the department of the University in which the corresponding course is offered, must be approved by the Graduate Council of the Division concerned, and in accordance with the usual University procedures and with such special procedures as the Council may determine. The Council shall make an annual review of all programs of off-campus graduate instruction with respect to course offerings, facilities, and staff.

(E) No student may enroll in an off-campus graduate program who has not been admitted to a Graduate Division.

APPENDIX G: New Instructional Technologies

1. Television. Extensive use of television will be dependent upon a number of factors. First, the geographic distribution of Learning Centers; second, the degree to which cable television facilities and/or satellite links can be scheduled for the distribution of programs; the proximity of students to campus television facilities; and, finally, the availability of television cassettes at a reasonably low cost.

The use of television in extended degree programs should be considered as part of the total learning system to be used in conjunction with other media and materials where appropriate. Broadcast television over educational and/or commercial channels, Instructional Television Fixed Service (ITFS - 2500 mhz), cassette television, local cable television and even television distributed via satellite can contribute significantly to both economy and quality when appropriately used to further specific learning goals.

The potential of the tele-lecturer, slow-scan TV, electronic blackboard and other techniques for discussion and seminar use has not yet been fully exploited. These might provide invaluable vehicles for informal seminars at Learning Centers. These techniques, for example, could be used by the instructor to set the objectives of a student-led seminar, thereby saving valuable time for discussion rather than for a summary of basic facts or concepts.

2. Auto-Tutorial Instruction. If students are scattered throughout California and yet enrolled in the University, the Learning Centers will play an important part in extended degree programs. Faculty will want to make extensive use of audio-cassette tape recorders, which have the advantages of portability and low cost. A fully equipped auto-tutorial laboratory must be the core of any Learning Center, no matter how distant from the University--providing students with the opportunity to learn within the facilities of the center as well as at home. Auto-tutorial methods of instruction have been widely used with great success on many campuses, especially in the sciences. Combined with the concept of self-paced learning, high quality study guides, seminars, and individual tutoring, they provide an admirable vehicle for instruction at Upper Division levels. This approach to learning also has the advantage of being comparatively low cost when pro-rated over large numbers of students. Many of these programs will have to make extensive use of auto-tutorial methods, if not for entire courses, at least for short modules of instruction. The auto-tutorial format has numerous advantages, not least among them being the creation of team courses in which one can include presentations by leading authorities who might not even be on a University campus.

The cost of auto-tutorial instruction has been worked out in great detail. It is unlikely, however, that the Learning Centers will need large auto-tutorial centers, as a small number of stations with a high utilization factor should satisfy most reasonable demands. In order to achieve maximum flexibility both in academic options and student learning, auto-tutorial methods should be made available both in the Learning Centers and to students at home. A primary objective of the use of this method must be to increase personal contact between students and faculty, not decrease it.

3. Dial Access Systems. There may be considerable demand for foreign language study. This would require the provision of language laboratory facilities in Learning Centers. This would be done through two methods (1) the use of cassette tapes, and (2) telephone connection to a campus dial access system, using as a prototype the installations already available in the University of California. This will permit the student to listen at home to language lessons as well as lectures on other subjects.

4. Computer Aided Instruction. The potential of computer aided instruction in University teaching has been reviewed by many authorities. The University of California has an enviable reputation for its leadership in this field. Computers have a particularly important role to play in the development of gaming and simulation courses in a wide variety of subjects and in educational situations where the student is expected to solve problems or interact with data banked in a machine. Cable facilities should be provided in Learning Centers for computer terminals where appropriate for the courses offered.

The use of electronic data processing for logistical support of extended degree programs should be explored in detail, to assure that every opportunity for effective electronic data processing support of this program is identified. In addition, careful study of the projected instructional requirements for electronic data processing support should be conducted, so that these may be coordinated, where appropriate with the logistical requirements. For example, one can imagine the possibility that a data terminal located in a Learning Center might be used for both learner access to computer aided instruction programs and staff access to administrative data banks, with resulting efficiency in the use of data transmission facilities and optimal use of terminal devices.

5. Film. Film materials can be economically produced and presented when their use furthers established learning objectives. The videotaping of certain films will also be carried out when such a process will result in financial economies as well as convenience in utilizing available equipment in Learning Centers and on campus.

